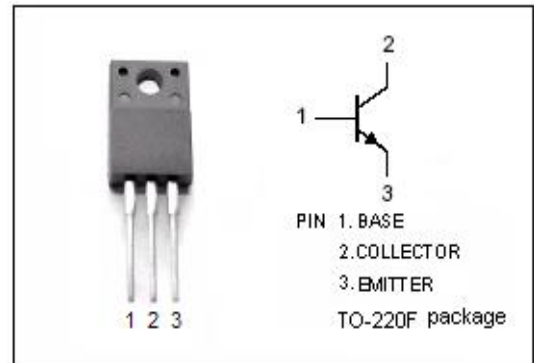


**isc Silicon NPN Power Transistors**
**2SC6144**
**DESCRIPTION**

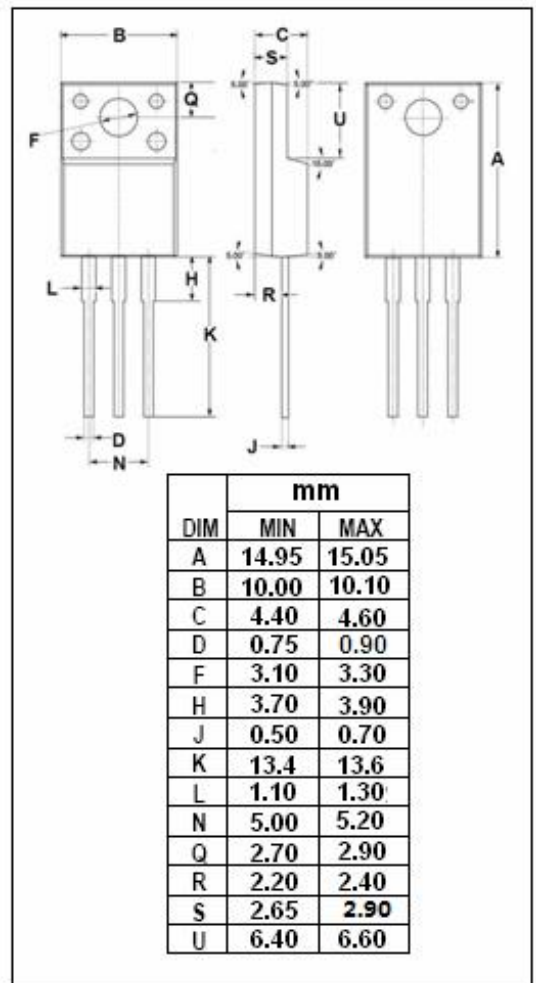
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = 0.36V(\text{Max.})@I_C = 6A$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 50V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Relay drivers, lamp drivers, motor drivers


**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	10	A
$I_{CM}$	Collector Current-Pulse	13	A
$I_B$	Base Current	2	A
$P_C$	Collector Power Dissipation $T_c=25^\circ\text{C}$	25	W
$T_j$	Max. Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$


**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5	$^\circ\text{C/W}$

## isc Silicon NPN Power Transistors

## 2SC6144

## ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 1\text{mA}; I_B= 0$	50		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 6\text{A}; I_B= 300\text{mA}$		0.36	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 6\text{A}; I_B= 300\text{mA}$		1.2	V
$I_{CBO}$	Collector Cutoff Current	$V_{CE}= 40\text{V}; V_{EB}= 0$		10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 5\text{V}; I_C= 0$		10	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C=0.27\text{A}; V_{CE}= 2\text{V}$	200	560	

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